Road Approval within a Riparian Management Area on Catface Mountain, near Clayoquot Sound

Complaint Investigation 980146

July 1999

Summary

This report concludes the Forest Practices Board's investigation into the approval of a road location within a riparian area on Catface Mountain in the Clayoquot Sound area.

Nature of the Complaint

In May 1997, the Friends of Clayoquot Sound-Forest Watch provided written review comments to International Forest Products Ltd., Westcoast Division on its Catface Planning Area forest development plan for Tree Farm Licence 54. They expressed concern that a proposed road was located within a 50-metre riparian reserve zone required by the *Clayoquot Sound Scientific Panel Recommendations* and identified in the forest development plan for Pineetle Creek. Encroachment by roads in riparian areas is generally discouraged by both the *Forest Practices Code of British Columbia Act* and the *Clayoquot Sound Scientific Panel Recommendations.*

The forest development plan was approved by the district manager in June 1997, and the road permit was approved in October 1997. No changes to the road location had been made. An amendment to move the road four metres further away from the stream but still within the reserve was made in February 1998. In March 1998, the Friends of Clayoquot Sound-Forest Watch filed a complaint with the Forest Practices Board. The complaint asserted that the road proposal and approval violated sections of the Code, including the *Forest Road Regulation,* as well as the *Clayoquot Sound Scientific Panel Recommendations.*

There were two key issues in the investigation:

- Were Scientific Panel recommendations included in the forest development plan enforceable under the Code?
- Did the approval of the road location comply with the legislation?

Investigation Findings

References and commitments to implementing the Scientific Panel recommendations were included in the licensee's management plan, acknowledged in the chief forester's approval letter for the management plan, and included in several sections of the forest development plan.

A 50-metre riparian reserve zone was identified for Pineetle Creek in the approved forest development plan. The reserve zone and the Scientific Panel rules governing road encroachment into that reserve became enforceable conditions under the Code as part of the approved forest development plan.

The Ministry of Forests district manager and Ministry of Environment, Lands and Parks regional manager did not consider the Scientific Panel reserve zone to be an enforceable condition of the Code; however, the Ministry of Forests intended to enforce the Scientific Panel

recommendations in another way, through contractual commitments in the licensee management plans.

The Scientific Panel recommendations permit encroachment in riparian reserves, if necessary, subject to certain conditions.

The road was designed by a qualified individual. Consideration was given to whether or not the road location could be moved farther from Pineetle Creek. Because of steeper grades and resultant safety concerns there was no practical alternative.

The Scientific Panel and Code conditions for encroachment were met.

Conclusions

The licensee's management plan and the chief forester's approval letter for that management plan created legally binding commitments to implement *Clayoquot Sound Scientific Panel Recommendations.*

The 50-metre Scientific Panel reserve zone for Pineetle Creek, plus the Scientific Panel rules governing road encroachment into that reserve, were part of the approved forest development plan and were enforceable under the Code.

While the Ministry of Forests district manager and Ministry of Environment, Land and Parks regional manager erred in not considering that the Scientific Panel reserve zone and associated recommendations became enforceable under the Code with the approval of the forest development plan, the Ministry of Forests intended to enforce the Scientific Panel conditions through the licensee's contractual obligation in the Management Plan for TFL 54.

Approval of the road location inside the 50-metre Scientific Panel reserve zone of Pineetle Creek was done in compliance with the *Clayoquot Sound Scientific Panel Recommendations* 7.23, 7.39 and 7.40 and with section 3.2 of the *Forest Road Regulation.*

In view of the high profile nature of the Clayoquot area, and the fact that the public had submitted concerns in writing about the road switchback, the district manager should have supported his decision of the road location approval with a written rationale.

Recommendations

In accordance with section 185 of the *Forest Practices Code of British Columbia Act*, the Board makes the recommendations set out below. In accordance with section 186 of the Act, the Board requests that parties notify it of steps taken in response to the recommendations, as set out below.

1. There was no written comment from the Ministry of Forests and the Ministry of Environment, Lands and Parks about the road being proposed in the Scientific Panel riparian reserve zone at both the forest development plan review stage and the road permit approval stage. Resource agencies should fulfill their responsibility to identify where a

proposed practice differs from the default Code practice in their review comments, especially about areas where the public has indicated a high level of interest and concern.

2. Although the approval of the road location technically complied with the *Clayoquot Sound Scientific Panel Recommendations* and the Code, the lack of written rationale made it difficult to review the level of consideration that went into the approval, including consideration of abandonment. A district manager should document reasons for approving road locations in riparian management areas. The rationale need not be so detailed that it creates significant additional workload, but it should demonstrate what alternatives to the proposed practices were considered and how they were evaluated. For example, in this situation, the evaluation should have included items such as alternative road locations and harvesting systems, and the risks and potential harm to the riparian area.

3. While the Board concluded that the approval of the road location within the Scientific Panel reserve zone was legitimate in this case, such encroachments must be avoided whenever possible as recommended by Scientific Panel recommendation 7.39.

4. When construction of the C-1000 road resumes, the appropriate conditions of the Scientific Panel should be enforced. For example, engineer and construct the road to minimize disturbance and to ensure the security of the road and the riparian ecosystem; and, there should be professional engineering supervision of the construction within the Scientific Panel reserve zone, as required by Scientific Panel recommendations 7.39 and 7.40.

5. All future forest development plans for the Catface area should provide clear, unambiguous information on riparian zones and be specific on the extent to which *Clayoquot Sound Scientific Panel Recommendations* apply.

The Board requests that Interfor advise the Ministry of Forests, South Island District, with a copy to the Forest Practices Board, before work proceeds on the switchback, of the actions taken and timing to address Board recommendation 4 above. The Board requests that the Ministry of Forests advise the Board on how they will address Board recommendations 1, 2, 3 and 5 above, by October 31, 1999.

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The Investigation

Introduction

This investigation concerns a road that was proposed and approved in the Clayoquot Sound area. The complainant had expressed concerns in its forest development plan review comments about the proximity of the road to a stream. The district manager approved the road without change. A minor amendment moving the road further from the stream was made after the original approval. The complainant then filed a complaint to the Forest Practices Board. A key issue in the investigation was whether or not the *Clayoquot Sound Scientific Panel Recommendations* became enforceable under the *Forest Practices Code of British Columbia Act* when aspects of the Scientific Panel recommendations were included in the forest development plan.

Background

In 1995 the provincial government adopted the *Clayoquot Sound Scientific Panel Recommendations* for the Clayoquot Sound designated area. The recommendations describe objectives and practices for forest management in the Clayoquot Sound area that are separate from those in the *Forest Practices Code of British Columbia Act* and related regulations and guidebooks (the Code).

In addition, the government signed an Interim Measures Agreement with local First Nations and other agencies, which led to the creation of the Central Region Board. The Central Region Board deals with resource management and land use planning in Clayoquot Sound. One of its objectives is to assess compliance with forest standards, such as those set in the Scientific Panel and the Code, incorporating the perspective of First Nations into that assessment. The Central Region Board is expected to represent the public interest and has the authority to review any plans prepared by government for the Clayoquot Sound designated area. The Central Region Board reviews plans for consistency with the Scientific Panel recommendations and relies upon the Ministry of Forests (MOF) and Ministry of Environment, Lands and Parks (MELP) to ensure consistency with the Code. The MOF district manager and the MELP regional manager jointly approve all forest development plans in the area.

In its 1997 forest development plan for Tree Farm Licence 54 Catface Planning Area, International Forest Products Ltd. (the licensee) proposed the C-1000 road to access blocks on Catface Mountain. Catface Mountain, located approximately 10 kilometres north of Tofino, is in the centre of the Clayoquot Sound designated area. The forest development plan map showed the proposed road with a switchback that came close to a stream reach of Pineetle Creek that was classified as S5 under the Forest Practices Code and as B2bii under the *Clayoquot Sound Scientific Panel Recommendations.*

Pineetle Creek flows down the north side of Catface Mountain into the ocean at Whitepine Cove. The upper reaches of the stream, near the proposed switchback, have a fairly steep gradient and a low likelihood of fish presence. The stream is in a gorge at this point and adjacent slopes are approximately 80 percent, levelling off to 25 percent and less further back from the

stream. The stream gradient becomes gentler further down the mountain and cutthroat trout are present in the lower reaches.

The forest development plan provided two separate classifications for each stream reach, one according to the Code and one according to the Scientific Panel. There are two classifications on upper Pineetle Creek nearest the road switchback – a Code classification of S5 and a Scientific Panel classification of B2bii. The plan also identified a riparian management zone width of 30 metres and a riparian reserve zone width of 50 metres for Pineetle Creek. The Code requires a minimum 30-metre wide (slope distance) riparian management zone on S5 streams and does not require a riparian reserve zone. The district manager with the agreement of the designated environment official may vary this width. The Scientific Panel uses the terminology hydroriparian reserve zone and requires a 50-metre wide (horizontal distance) zone on class B2bii streams.

In its comments on the forest development plan, the Friends of Clayoquot Sound-Forest Watch (the complainant) expressed concern with the location of the C-1000 road. They believed that the proposed road was within the 50-metre hydroriparian reserve recommended by the Scientific Panel. The complainant was concerned that the road's intrusion would reduce the capacity of the reserve to protect both the stream and wildlife habitat. The Central Region Board did not review the 1997 forest development plan. On June 11, 1997, the forest development plan was approved without changes to the road.

The licensee submitted a road permit for approval for the C-1000 road, with an appended road layout and design, on September 8, 1997. The permit application included a map, similar to that in the forest development plan, indicating the road switchback near Pineetle Creek. The centre-line of the road at the switchback was measured in the field to be approximately 30 metres from Pineetle Creek. The Central Region Board did review the proposed road permit for the C-1000 road and approved the permit issuance in a letter to the district manager. The district manager approved the road permit, including the switchback, on October 9, 1997.

The complainant expressed concerns about the road location in two letters to the district manager in October and November 1997. The district manager replied on December 4, 1997, and provided his reasoning for approving the road permit. Road construction began, but was halted in December 1997 at a stream crossing approximately 400 metres from the switchback because of winter weather conditions. In January 1998, the licensee attempted to relocate the proposed road switchback farther from the creek and applied for an amendment. A road permit amendment, approved on February 5, 1998, specified a slight relocation of the switchback four metres farther from the stream. That did not resolve the complainant's concerns, so in March the complainant submitted a complaint to the Forest Practices Board. There was no additional roadwork through the summer. Construction resumed in September 1998 but was soon halted because of a blockade by protesters.

Nature of the Complaint

The complaint relates to section 10 of the Act and section 3 of the *Forest Road Regulation*. The complaint states that a road switchback has been planned and approved within a riparian reserve

zone identified on the forest development plan for Pineetle Creek in Clayoquot Sound. A number of assertions are made in the complaint:

- there is a contravention of section 10 of the Act, which requires forest development plans to be consistent with higher level plans;
- there is a contravention of section 3(2) of the *Forest Road Regulation* which requires that roads be kept out of riparian management areas;
- there is a contravention of a Scientific Panel recommendation that class B2bii streams receive a 50-metre reserve; and,
- there is a violation of a Scientific Panel recommendation that road construction in hydroriparian reserves be avoided. Where no practical alternative is possible, abandoning the development may be advisable.

Relief Requested

The complainant requested that the Board investigate:

1. failure of the licensee to propose adequate protection for Pineetle Creek;
2. failure of the district manager to adequately address matters of public concern including protection of forest resources and minimization of adverse impacts from the proposed road right-of-way; and
3. any other relevant issues.

Problem Resolution

There have been efforts to resolve the problem. The complainant had made several efforts to communicate concerns to the licensee and the Ministry of Forests. The licensee applied for, and was issued, an amended road permit to move the road location approximately four metres farther from the creek. In March 1998 the Central Region Board asked the agencies for a second review of the proposal. This review was done in April 1998, but confirmed the original decision to approve the road location. The Forest Practices Board did not find additional opportunities to encourage resolution.

Investigation Findings

This report is structured around the various compliance issues that have been raised during the investigation. Each of the following sections deals with a compliance issue, except section B. Section B discusses which riparian zone applies and whether or not the proposed road encroaches into that zone. This relates to the compliance issues in section C.

A. Requirement for the forest development plan to be consistent with higher level plans

The complaint asserts that the forest development plan should be consistent with the *Clayoquot Sound Scientific Panel Recommendations.* The section discusses whether or not that was required by the Code.

Section 10 of the Act states:

> A forest development plan must …be consistent with any higher level plan in effect when the forest development plan is approved or given effect under Division 5 or this Part.

At the time of the approval of the forest development plan in June 1997, the definition of "higher level plan" in the Act was:

> (a) a plan formulated under section 4(c) of the *Ministry of Forests Act* and designated as a higher level plan by the district manager in accordance with direction from the chief forester,
>
> (b) a management plan designated as a higher level plan by
>
> (i) the chief forester, for tree farm licences, and
> (ii) the regional manager, for other agreements under the Forest Act,
>
> (c) an objective for a resource management zone,
>
> (d) an objective for a landscape unit or sensitive area,
>
> (e) an objective for a recreation site, recreation trail or interpretive forest site, and,
>
> (f) plan or agreement declared to be a higher level plan by
>
> (i) the ministers, or
> (ii) the Lieutenant Governor in Council under this or any other Act.

The *Clayoquot Sound Scientific Panel Recommendations* do not meet any of the criteria for a higher level plan in the Code. They were not designated as a higher level plan nor do they qualify as any of the objectives listed in the definition.

Finding 1:

The *Clayoquot Sound Scientific Panel Recommendations* do not form a higher level plan for Code purposes.

Although the Act did not require the 1997 forest development plan for Tree Farm Licence 54 Catface Planning Area to be consistent with the *Clayoquot Sound Scientific Panel Recommendations*, binding and enforceable commitments to implement some aspects of the Scientific Panel recommendations were created in another way (see section B following). As well, commitments

to implement the Scientific Panel recommendations were included in the management plan for TFL 54 and were acknowledged in the chief forester's approval letter for the management plan.

B. Location of the proposed road relative to the applicable riparian zone

The critical aspect of this complaint is that the road is asserted to be within a riparian zone for Pineetle Creek. In this case, two different zones may were identified: the Code minimum 30-metre riparian management zone and the 50-metre Scientific Panel reserve zone. It is a legal requirement under the Code to have at a minimum a 30-metre riparian management zone on S5 streams. It is also a legal requirement that the conditions set out in an approved forest development plan be followed.

The Scientific Panel reserve zone is not a normal legal requirement under the Code. Both the Code and Scientific Panel zones were identified in the forest development plan as discussed later in this section. The complainant asserts that the wider 50-metre Scientific Panel reserve zone applies and is enforceable even if the Scientific Panel recommendations are not normally legally binding.

References and commitments to the Scientific Panel recommendations are found in several relevant documents. In its management plan for TFL 54 dated July 1995, the licensee promised to implement the Scientific Panel recommendations. The chief forester acknowledged the commitments in his approval letter for the management plan dated December 16, 1996. Numerous references to Scientific Panel recommendations are also found in sections of the forest development plan. The introduction contains the following statement: "The Clayoquot Sound Scientific Panel recommendations have also been incorporated into this plan to the fullest extent possible at this time."

Finding 2:

References and commitments to implementing the Scientific Panel recommendations were included in the licensee's management plan, acknowledged in the chief forester's approval letter for the management plan, and included in several sections of the forest development plan.

The most significant reference in the forest development plan is found in a table labelled "Stream Management Plan" (Appendix) in the Cutting Unit Summary. The table contains a list of streams within the plan area. For each stream, there is one column for Code classification and another column for Scientific Panel classification. For Pineetle Creek the table has both an "S5" Code stream classification and a "B2bii" Scientific Panel stream classification. The table also indicates two riparian zones, a riparian management zone of 30 metres and a riparian reserve zone of 50 metres, labelled RMZ and RRZ respectively. These are Code acronyms. Despite the apparent reference to a Code 50-metre riparian reserve zone, the Board accepted the explanation from the licensee and the Ministry of Forests that the 50-metre RRZ listed in the table referred to the 50-metre Scientific Panel reserve zone required by the Scientific Panel, not a Code zone.

Normally under the Code, when both a riparian management zone and a riparian reserve zone are designated on a stream, the zones are additive. Under the Scientific Panel system only a reserve zone is applied. In this case it is not clear from the plan if the two zones identified in the forest development plan are additive to make an 80-metre riparian management area or overlapping for a 50-metre riparian management area.

Finding 3:

A 50-metre Scientific Panel reserve zone and a 30-metre Code riparian management zone were identified for Pineetle Creek in a table included in the approved forest development plan. However, there is confusion as to whether or not the two zones are additive or overlapping.

The Code's public review and comment process is the public's only legislated opportunity to have input into forest development plans and hence forest operations. It is therefore important that the information in a forest development plan accurately reflect the practices that are to be implemented in the field and that will be enforced under the Code.

The complainant believed that the Scientific Panel recommendations, by being included in the approved forest development plan, became part of the plan and thus legally required under the Code. As a result, they believed that the Scientific Panel restrictions on roads in riparian zones had also been incorporated into the plan and would be enforceable under the Code. The Ministry of Forests staff told the Board that it was their intention to require the licensee to meet the more rigorous set of standards, either the Code or the Scientific Panel. They intended to enforce the Scientific Panel recommendations though the licensee's contractual obligations in the management plan. However, staff and the district manager told the Board that it was not their intention to approve the Scientific Panel requirements through the forest development plan. They did not consider the 50-metre Scientific Panel reserve zone and Scientific Panel recommendations for roads within a reserve zone to be an enforceable condition of the approved forest development plan. The regional manager for MELP also confirmed that he had not intended to approve the Scientific Panel conditions within the forest development plan.

Sections 12 and 60 of the Act require that a silviculture prescription and road layout and design, respectively, be consistent with an approved forest development plan. A description of riparian management zones and reserve zones is part of the required content of a silviculture prescription under section 39 of the *Operational Planning Regulations*. Thus, the Code does not require licensees to include the width of riparian management zones or riparian reserve zones in a forest development plan. However, if an approved forest development plan does specify widths (even if not required to be included) then the silviculture prescriptions and road layout and design must be consistent with those widths as specified in the forest development plan.

The aspects of the Scientific Panel recommendations that were included in the forest development plan became enforceable under the Code when the plan was approved.

Finding 4:

The 50-metre Scientific Panel reserve zone identified in the forest development plan became an enforceable condition under the Code when the plan was approved.

While the MOF district manager and the MELP regional manager erred in not considering this to be the case, the Ministry of Forests did intend to enforce the Scientific Panel recommendations through the contractual commitments in the licensee's management plan.

The Board has found that the 50-metre Scientific Panel reserve zone applies in the circumstances of this complaint. As described in the introduction, the centre-line of the original road location and the amended road were approximately 30 metres and 34 metres, respectively, slope distance from Pineetle Creek. Both the original and the amended road proposals are clearly within the 50-metre Scientific Panel reserve zone.

Finding 5:

Both the original and the amended road were located within the 50-metre Scientific Panel reserve zone for Pineetle Creek.

C. Approval of the road layout and design

This section evaluates whether or not the road layout and design was consistent with the forest development plan and also looks at the information that the district manager considered in approving the C-1000 road location. Did the necessary conditions exist such that the approval complied with the requirements of the Scientific Panel and the Code?

The road layout and design is a document appended to the road permit, which provides engineering specifications for construction of a road. This includes maps of the road location as well as cross-sectional profiles at regular intervals along the road.

Section 60 of the Act requires the road layout and design to be consistent with the approved forest development plan. At the time of the approval of the road layout and design for the C-1000 road, section 60 stated:

> (1) … a person who is the holder of a road permit … must obtain the district manager's approval for a road layout and design before constructing or modifying a road to which the permit applies …
>
> (3) The person required to prepare a road layout and design … must ensure that the layout and design are consistent with any forest development plan…

Therefore, any person required to prepare a road layout and design must ensure that the layout and design is consistent with any forest development plan.

To determine consistency, the Board considered both the forest development plan map showing the proposed road location as well as text in the plan and any restrictions associated with it that might affect the road proposal. Because the 50-metre Scientific Panel reserve zone was part of the forest development plan and enforceable, the Board therefore considered it logical that specific Scientific Panel recommendations[1] governing road encroachment into riparian zones also applied. To decide whether the road layout and design was consistent with the forest development plan's conditions for encroachment into riparian zones, the Board focused on the Scientific Panel requirements associated with the 50-metre Scientific Panel reserve zone. The relevant recommendations are R7.23, R7.39 and R7.40.

R7.23 identifies the width of the riparian zone for class B2bii streams:

> "Treat streams in Class B(2)(b) (non-alluvial channels with gradient 8-20%, entrenched) as B(1)(b) streams."

The Scientific Panel requires that B(1)(b) streams have a 50-metre reserve zone.

R7.39 deals with road encroachment into riparian zones:

> "Avoid road construction in hydroriparian reserves. Where no practical alternative is possible, abandoning the road may be advisable. If the development does proceed, engineer and construct the road to minimize disturbance. Require professional engineering supervision at all stages of road construction."

R7.40 deals with the engineering aspects of roads in riparian zones:

> "In hydroriparian reserves, engineer the road and bridges to ensure that the security of neither the road nor the hydroriparian ecosystem is jeopardized. The road shall not interfere with the circulation of water or with the movement of terrestrial or aquatic animals. In particular, the design must ensure that the roadway does not act as a dam during periods of high flow or storm surge, nor as a source of sediment."

Recommendations 7.39 and 7.40 are similar to Section 3(2)[2] of the *Forest Road Regulation* in that these discourage, but do not prohibit, road construction in riparian zones. However, the wording of 7.39 is vague and does not provide guidance for the degree of diligence that should be given to considering abandoning a road before proceeding with development.

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[1] Both the Code, through section 3(2) of the *Forest Road Regulation*, and the Scientific Panel place restrictions on the location of roads within riparian management areas or hydroriparian reserves zones respectively. The *Forest Road Regulation* require that either there be no other practicable location for a road or that other locations increase the risk for sedimentation into a stream. The Scientific Panel has no direct requirement for another practicable route, although that is implied. However, disturbance must be minimized and close professional supervision of construction is required.

[2] Section 3(2) in effect in 1997 is now section 4(2) of the *Forest Road Regulation*.

Finding 6:

Although the Scientific Panel recommendations state that where no practical alternative is possible, abandoning road development may be advisable rather than constructing it within a Scientific Panel reserve zone, encroachment is permitted, if necessary, subject to professional supervision and minimizing disturbance.

Information about the proposed C-1000 road and the switchback location is shown on a map in the forest development plan (Appendix). The forest development plan map shows the road and switchback in approximately the same location as they are proposed in the road layout and design, so the road layout and design is consistent with the forest development plan.

Finding 7:

The road layout and design map was consistent with the map in the forest development plan.

The Scientific Panel recommendations discourage road construction in riparian areas, stating that it may be advisable to consider abandoning a road as an alternative to encroachment. Nevertheless, the recommendations provide for encroachment in specific circumstances. If the prerequisite conditions exist, the road layout and design for the C-1000 road switchback can be consistent with these recommendations and the forest development plan.

The road permit and the road layout and design were approved by the district manager in an October 9, 1997 letter to the licensee. The letter did not provide a rationale for the district manager's approval. There is no legal requirement for a rationale, but it is the Board's view that reasons should be given whenever a decision is made that goes contrary to standard practices, policies or rules. In the circumstances of this complaint, the general rule in both the Code and the Scientific Panel recommendations was to avoid locating roads in riparian areas. Therefore, there should have been an explicit rationale, available for review, for the approval of construction of the switchback in the Scientific Panel reserve zone. In the absence of a specific written rationale, the Board inferred the district manager's reasons from a December 4, 1997 letter from the district manager to the complainant, internal MOF memos and interviews.

When considering the forest development plan government resource agencies apparently did not recognise that the road was proposed within either a Scientific Panel riparian reserve or a Code riparian management area because they failed to mention the issue in their review comments.

Finding 8:

When considering the forest development plan, neither the MOF nor MELP acknowledged that the road switchback was within the Scientific Panel reserve zone in their review comments. The issue was raised first in the complainant's forest development plan review comments letter to the licensee.

The licensee did not identify any concern with a riparian zone when the road layout and design plans were submitted.[3] When he approved the road location in October 1997, the district manager recognized that the road was within the 50-metre Scientific Panel reserve zone, but did not consider the reserve zone to be legally binding. In his December 4, 1997 response letter to the complainant outlining his reasoning for approving the road, the district manager said:

> "This section of Pineetle Creek is classified as a S5 creek according to the FPC which would require a 30m riparian management ... area. (At) Pineetle Creek, the slope distance from the creek to the road is 30.5m ... Therefore ... there is no infringement on the riparian management area."[4]

In interviews, the district manager confirmed that he believed that the road was located outside of the 30-metre Code riparian management zone. However, district staff recalled that, at the time of the road permit approval, the road was in fact within 30 meters of the creek and that the district manager was so informed. The memo in the road permit application package originally identified the road as being within 25 metres of the stream. The Board accepts the staff recollection and finds that the original road location was within 30 metres of Pineetle Creek. It was not until two months later that an amendment relocated the road some four metres farther from the creek. The 30.5 metre number recalled by the district manager applied to the subsequently proposed amendment and had been used incorrectly in the December 4, 1997 letter to refer to the original road location.

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3 At the time of the submission, the Code did not require that riparian management zones be identified on a map for approval of the road layout and design. Section 6 of the Forest Road Regulation now requires such a map. The licensee currently includes a riparian management plan with submissions.

4 The 30.5 metres referred to is a measure from the edge of the road prism rather than from the edge of the clearing width. The Code is not clear on whether or not the full clearing width is considered part of a road for the purposes of the *Forest Road Regulation*. Previously mentioned field measurements taken during the September 1998 Board inspection were for the flagged road centre-line.

Finding 9:

At the time of the road permit approval, district staff recognized that the original road location was inside the 30-metre Code riparian management zone. The district manager recognized that the original road location was within the 50-meter Scientific Panel reserve zone but did not consider that such encroachment was restricted under the approved forest development plan.

The contractor that prepared the road layout for the licensee was aware that the original road was within the riparian management area of Pineetle Creek because measurements had been taken to the stream. Licensee staff recalled that, when it appeared that the road would be within both the 50-metre Scientific Panel reserve zone and the 30-metre Code minimum riparian management zone, the contractor was asked if this could be avoided. Physical limitations meant that road relocation would increase excavation of the hillside. Also, the contractor's opinion was that moving the road farther from the creek would require a tighter turning radius for loaded trucks, one that would not be safe.

Finding 10:

The licensee considered the option of moving the road location further back from Pineetle Creek to avoid encroaching on both the 30-metre Code riparian management zone and 50-metre Scientific Panel reserve zone.

MOF staff assessed the road proposal in the field and agreed with the licensee's assessment that the proposed road and switchback location was required, primarily because of safety considerations. The location of the switchback was determined by the angle of the approaching road; to avoid the riparian management area would require a steeper grade. The road as currently proposed would have approximately a 20 percent grade and both the licensee and the MOF maintain that making it steeper would create a safety issue for loaded trucks coming downhill.

In the Dec. 4, 1997 letter to the complainant the district manager explained that road location outside of the reserve would not be feasible. He also stated the basis for that opinion:

> "Although we have determined that construction of the 90 metre section of road would infringe upon the reserve, relocation outside of the reserve is not feasible. This is due to the fact that this section of road is a switchback and relocation would cause the road grade to be too great to permit safe equipment operation."

In an April 14, 1998 letter to the Central Region Board, in response to a request to review the road and switchback location, MOF and MELP staff confirmed that they had concluded that the approval was consistent with the Scientific Panel recommendations and there was no practical alternative.

There was sparse written evidence of considerations of other road locations so that was augmented by oral recollections of the road design contractor, licensee and MOF staff. Taken together, the information indicates that consideration was given to moving the road location.

In considering whether or not there was another practical alternative route for the switchback the Board considered the opinions of the road design contractor, the licensee staff and an MOF technician, all of whom had considerable experience with coastal road-building. It also considered the opinion given by a civil engineer that reviewed the road and switchback location at the request of the complainant. The Board found that the evidence from the civil engineer did not conflict with the opinions of the other individuals regarding the safety and environmental concerns arising from moving the road switchback further from the creek. Based on the evidence, the Board found that there was no practical alternative.

Finding 11:

Government staff and the licensee considered whether or not the road location could be moved farther from Pineetle Creek but concluded that the steeper grades and resultant safety concerns precluded relocation. There was no practical alternative.

The district manager was asked if he had considered refusing to approve the road if it had to encroach into the reserve. He replied that he did consider that option but because the road accessed the only blocks in the area that did not require using a helicopter for logging and because he did not feel that the environmental risk was enough to warrant putting the company in the position of having to use helicopters to log the blocks, he felt that abandonment was not a preferred option. There was no written rationale available on the consideration of abandonment, and, as previously mentioned, recommendation 7.39 is vague on the level of consideration that should happen.

In the December 4, 1997 letter, the district manager described what he considered when he approved the road location. (Note: References in the following quotes to 'reserves' refer to the 50-metre Scientific Panel reserves, not Code reserves.) He stated: "These reserves are generally satisfactory when planning forestry activities but, at the site level, certain specific conditions may warrant exceptions to the prescribed reserves if the integrity of the reserve and its ecosystem are maintained." He considered that road location outside of the reserve was not feasible. He was also satisfied that the road would not damage the integrity of the riparian ecosystem. He provided several reasons for this latter conclusion in the Dec. 4, 1997 letter:

> "The road is located at the top of the entrenchment slope of the creek and thus avoids any direct impacts on the creek.
>
> The road is engineered by a professional engineer with appropriate drainage structures.
>
> The road location does not interfere with the circulation of water or with the movement of terrestrial or aquatic animals.

The length of the infringement into the reserve is relatively short."

The district manager was inaccurate in one respect; the road had been designed by a professional forester, on contract to the licensee, with many years of coastal road engineering experience but not by a professional engineer. However, the licensee's logging engineer responsible for the Catface area was a professional engineer and accompanied the professional forester during the location of the road in the switchback area.

In an interview with the Board analyst the district manager summarized his considerations in approving the road permit as follows:

- Did he have the authority to approve it?
- Would there be an environmental impact?
- Was the road, as proposed, not in the public interest?
- Was he adequately managing and conserving forest resources?

He concluded that the road could be approved.

Although the district manager did not believe the Scientific Panel recommendations to be legal requirements, his letter and interview comments indicate that he did consider them and that the conditions for encroachment into a riparian zone, stated in R7.39 and R7.40, were met.

Finding 12:

Evidence provided indicates that the Scientific Panel conditions for encroachment into the Scientific Panel reserve zone were met. Therefore, the road layout and design was consistent with the forest development plan.

Recall that the district manager did not believe that the Scientific Panel's 50-metre riparian reserve was legally required as part of the forest development plan. MOF staff nevertheless were focused on minimizing impact on the 50-metre Scientific Panel reserve zone. As a result, the district manager brought Scientific Panel criteria into his decision.

Once the district manager decided that the development should proceed, he satisfied himself that the proposal met the Scientific Panel requirements (R7.39 and R7.40) to engineer and construct the road so that it would be secure and would minimize disturbance and impacts on the hydroriparian ecosystem.

Finding 13:

The district manager was of the opinion that there were no other practicable locations. The road switchback was located by a qualified professional forester with the assistance of a professional engineer. The considerations and practices applied to locating the switchback within the Scientific Panel reserve zone complied with the requirements of the Code and the Scientific Panel.

Conclusions

1. The *Clayoquot Sound Scientific Panel Recommendations* did not meet the definition of a higher level plan as defined by the Code. There was no contravention of section 10 of the Act that requires a forest development plan to be consistent with a higher level plan. However, the licensee's management plan and the chief forester's approval letter for that management plan created legally binding commitments to implement *Clayoquot Sound Scientific Panel Recommendations.*

2. Incorporating *Clayoquot Sound Scientific Panel Recommendations* into the forest development plan resulted in the complainant having a different understanding from the agencies on the actual content of the approved plan. The complainant was correct in understanding that the 50-metre Scientific Panel reserve zone for Pineetle Creek, plus the Scientific Panel rules governing road encroachment into that reserve, were part of the approved forest development plan and were enforceable under the Code.

3. While the MOF district manager and MELP regional manager erred in not considering that the Scientific Panel reserve zone and associated recommendations became enforceable under the Code with the approval of the forest development plan, the MOF intended to enforce the Scientific Panel conditions through the licensee's contractual obligation in the anagement plan for TFL 54.

4. Approval of the road location inside the 50-metre Scientific Panel reserve zone of Pineetle Creek was done in compliance with the *Clayoquot Sound Scientific Panel Recommendations* 7.23, 7.39 and 7.40 and with section 3.2 of the *Forest Road Regulation.*

5. In view of the high profile nature of the Clayoquot area, and the fact that the public had submitted concerns in writing about the road switchback, the district manager should have supported his decision of the road location approval with a written rationale.

Recommendations

In accordance with section 185 of the *Forest Practices Code of British Columbia Act*, the Board makes the recommendations set out below. In accordance with section 186 of the Act, the Board requests that parties notify it of steps taken in response to the recommendations, as set out below.

1. There was no written comment from the Ministry of Forests and the Ministry of Environment, Lands and Parks about the road being proposed in the Scientific Panel riparian reserve zone at both the forest development plan review stage and the road permit approval stage. Resource agencies should fulfill their responsibility to identify where a proposed practice differs from the default Code practice in their review comments, especially about areas where the public has indicated a high level of interest and concern.

2. Although the approval of the road location technically complied with the *Clayoquot Sound Scientific Panel Recommendations* and the Code, the lack of written rationale made it difficult to review the level of consideration that went into the approval, including consideration of abandonment. A district manager should document reasons for approving road locations in riparian management areas. The rationale need not be so detailed that it creates significant additional workload, but it should demonstrate what alternatives to the proposed practices were considered and how they were evaluated. For example, in this situation, the evaluation should have included items such as alternative road locations and harvesting systems, and the risks and potential harm to the riparian area.

3. While the Board concluded that the approval of the road location within the Scientific Panel reserve zone was legitimate in this case, such encroachments must be avoided whenever possible as recommended by Scientific Panel recommendation 7.39.

4. When construction of the C-1000 road resumes, the appropriate conditions of the Scientific Panel should be enforced. For example, engineer and construct the road to minimize disturbance and to ensure the security of the road and the riparian ecosystem; and, there should be professional engineering supervision of the construction within the Scientific Panel reserve zone, as required by Scientific Panel recommendations 7.39 and 7.40.

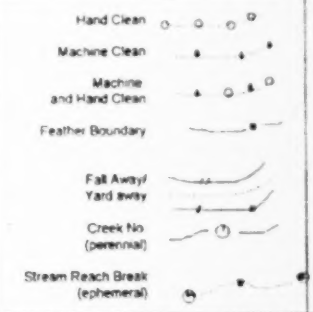
5. All future forest development plans for the Catface area should provide clear, unambiguous information on riparian zones and be specific on the extent to which *Clayoquot Sound Scientific Panel Recommendations* apply.

The Board requests that Interfor advise the Ministry of Forests, South Island District, with a copy to the Forest Practices Board, before work proceeds on the switchback, of the actions taken and timing to address Board recommendation 4 above. The Board requests that the Ministry of Forests advise the Board on how they will address Board recommendations 1, 2, 3 and 5 above, by October 31, 1999.

Appendix

Table from Interfor's Stream Management Plan

Map Symbols



Key

Activity in RMZ
- CC - clear cut
- CC (var) - clear cut variable width
- NC - no cut
- FC - feather cut

Falling
- AWAY - fall away from stream
- AVOID - avoid falling trees across stream unless not possible to avoid
- ACROSS - falling trees across stream permitted, no topping or limbing in stream
- L/T (dsm) - leave trees of specified diameter along streambanks

Yarding
- AWAY - yard away from stream
- AVOID - avoid yarding across stream, use best available lift
- ACROSS - yarding across stream permitted, use best available lift
- VERTICAL - aerial yarding

Log Piling Restrictions - logs are not to be piled within the distance indicated from the stream

Debris Piling Restrictions - debris is not to be piled within the distance indicated from the stream

Debris Management
- HC - hand clean fine introduced debris within 60 days of harvest completion
- MC - machine clean large introduced debris concurrent with harvesting

Note: Leave natural instream LOD intact during falling (bucking), yarding, and stream cleaning activities. Where required for safety, trees may be felled into RMA no cut areas (may or may not be recoverable)
REFER TO RIPARIAN MANAGEMENT PLAN FOR DETAILED PRESCRIPTIONS

Stream Reach	FPC Class.	CSSPR Class.	RRZ (m)	RMZ (m)	Map Marking	Field Marking	Activity in RMZ	Falling	Yarding	Prescriptions: Log Piling Restrictions (m)	Prescriptions: Debris Piling Restrictions (m)	Prescriptions: Debris Management
CT PE	S5	B2bil	50	30	BLUE	CT PE BLUE						
CT 5-2	S6	B2al	0	20	BLUE	CT 5-2 BLUE						
CT 5A	S5	B2bil	50	30	BLUE	CT 5A BLUE						
CT 5B	S5	B3b	20	30	BLUE	CT 5B BLUE						
CT 5C	S5	B3b	20	30	BLUE	CT 5C BLUE						
CT 5D	S6	B2al	0	20	BLUE	CT 5D BLUE						
CT 5-5-1	S6	B3ail	0	20	BLUE	CT 5-5-1 BLUE						
CT 5-5-2	S6	B3ail	0	20	BLUE	CT 5-5-2 BLUE						
CT 5-6	S6	B2al	0	20	BLUE	CT 5-6 BLUE						
CT 5-8	S6	B2al	0	20	BLUE	CT 5-8 BLUE						
CT 6	S6	B2al	0	20	BLUE	CT 6 BLUE						
CT 7	S6	B3ail	0	20	BLUE	CT 7 BLUE						

Map to follow on next page

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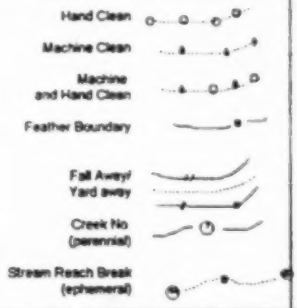

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CT 5B	S5	B3b	20	30	BLUE	CT 5B BLUE						
CT 5C	S5	B3b	20	30	BLUE	CT 5C BLUE						
CT 5D	S6	B2al	0	20	BLUE	CT 5D BLUE						
CT 5-5-1	S6	B3all	0	20	BLUE	CT 5-5-1 BLUE						
CT 5-5-2	S6	B3all	0	20	BLUE	CT 5-5-2 BLUE						
CT 5-6	S6	B2al	0	20	BLUE	CT 5-6 BLUE						
CT 5-8	S6	B2al	0	20	BLUE	CT 5-8 BLUE						
CT 6	S6	B2al	0	20	BLUE	CT 6 BLUE						
CT 7	S6	B3all	0	20	BLUE	CT 7 BLUE						

Map to follow on next page

Map from Interfor's Stream Management Plan